

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
8 April 2004 (08.04.2004)

PCT

(10) International Publication Number  
**WO 2004/028803 A1**

- (51) International Patent Classification<sup>7</sup>: **B32B 27/32**, 27/08, 27/12, B29C 51/14, 70/82, 63/02, 65/70 // B29K 67:00
- (21) International Application Number:  
PCT/NL2003/000660
- (22) International Filing Date:  
26 September 2003 (26.09.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
02079012.7 27 September 2002 (27.09.2002) EP  
03075484.0 18 February 2003 (18.02.2003) EP
- (71) Applicant (for all designated States except US):  
**LANKHORST INDUTECH B.V.** [NL/NL]; Prinsengracht 2, NL-8607 AD Sneek (NL).
- (72) Inventors; and  
(75) Inventors/Applicants (for US only): **JACOBS, Johannes, Antonius, Joseph** [NL/NL]; De Warring 23, NL-8447 EB Heerenveen (NL). **BLOEMHOF, Fokke** [NL/NL]; S. Hepkemalaan 14, NL-8521 DH Sint Nicolaasga (NL).
- (74) Agent: **PRINS, A.W.; NIEUWE PARKLAAN 97**, NL-2587 BN DEN HAAG (NL).
- (81) Designated States (*national*): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, EG, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**  
— with international search report  
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR REINFORCING AN ARTICLE

(57) Abstract: The present invention relates to a method for reinforcing an article comprising attaching to at least one surface of said article a tape, film or yarn of a drawn thermoplastic polymer. The present invention further relates to an article comprising a solid thermosetting or thermoplastic material. The thermoplastic material being of essentially the same composition as said tape, film or yarn, which method optionally further comprises recycling the reinforced article. The tape, film or yarn is attached to said article by means of a heat treatment and/or by applying pressure and moreover, a layer of foam can also be applied upon at least part of the shaped material and before applying the covering layer at least part of the foam.